

**Linked List and Array List**

[To students: You will submit a zip file on D2L containing: “stack.c”, “queue.c” and “queue\_stack.c” only. You will also submit the hardcopy of these three files. No “summary” file this time.]

```
→ stack git:(master) X cat input
15 7 1 1 + - / 3 * 2 1 1 + + -
→ stack git:(master) X make clean
rm -f *.o
rm -f rpn
→ stack git:(master) X make run
gcc -g -c rpn.c -o rpn.o
gcc -g -c stack.c -o stack.o
gcc -g -c ll.c -o ll.o
gcc -g -o rpn rpn.o stack.o ll.o
./rpn < input
Enter the postfix expression: TOP: NULL
TOP: 15 -> NULL
TOP: 7 -> 15 -> NULL
TOP: 1 -> 7 -> 15 -> NULL
TOP: 1 -> 1 -> 7 -> 15 -> NULL
TOP: 2 -> 7 -> 15 -> NULL
TOP: 5 -> 15 -> NULL
TOP: 3 -> NULL
TOP: 3 -> 3 -> NULL
TOP: 9 -> NULL
TOP: 2 -> 9 -> NULL
TOP: 1 -> 2 -> 9 -> NULL
TOP: 1 -> 1 -> 2 -> 9 -> NULL
TOP: 2 -> 2 -> 9 -> NULL
TOP: 4 -> 9 -> NULL
Result is: 5
→ stack git:(master) X make clean
rm -f *.o
rm -f rpn
→ stack git:(master) X make run OPTION=-DQUEUE
```

```
gcc -g -c rpn.c -o rpn.o -DQUEUE
gcc -g -c queue_stack.c -o stack.o -DQUEUE
gcc -g -c ll.c -o ll.o
gcc -g -c queue.c -o queue.o
gcc -g -o rpn rpn.o queue.o stack.o ll.o -DQUEUE
./rpn < input
Enter the postfix expression: TOP: HEAD: NULL
TOP: HEAD: 15 -> NULL
TOP: HEAD: 7 -> 15 -> NULL
TOP: HEAD: 1 -> 7 -> 15 -> NULL
TOP: HEAD: 1 -> 1 -> 7 -> 15 -> NULL
TOP: HEAD: 2 -> 7 -> 15 -> NULL
TOP: HEAD: 5 -> 15 -> NULL
TOP: HEAD: 3 -> NULL
TOP: HEAD: 3 -> 3 -> NULL
TOP: HEAD: 9 -> NULL
TOP: HEAD: 2 -> 9 -> NULL
TOP: HEAD: 1 -> 2 -> 9 -> NULL
TOP: HEAD: 1 -> 1 -> 2 -> 9 -> NULL
TOP: HEAD: 2 -> 2 -> 9 -> NULL
TOP: HEAD: 4 -> 9 -> NULL
Result is: 5
```

## ENGR120 Chapter 13 Stack and Queue Test Results

Student Name: \_\_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_

Tester (Do not sign if the Student Name is blank): \_\_\_\_\_

### Linked List and Array List

Code compiles: ☐Y ☐N # of warnings: \_\_\_\_\_

Does not compile just because the c files don't fit Makefile (compiles after a few fixes): ☐Y ☐N

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Code ran: ☐Y ☐N

Terminated OK: ☐Y ☐N

Output Correctly ("make run"): ☐Y ☐N

Comment:

Output Correctly ("make run OPTION=-DQUEUE"): ☐Y ☐N

Comment:

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Other comments:



## Grading Rubric

	% usually deducted
A. There are defects in source code not revealed by tests	10-30
B. Handed in extra source files	10
C. Names are not meaningful	10
D. Indentation does not indicate program structure	10
E. Program will not compile	50-100
F. Program produces incorrect results	20-100
G. Incorrect implementation	20-100
H. Does not compile only because of Makefile	10
I. Program solves wrong problem	10-100
J. Use of unnamed constant	10

Hand in hardcopies of “stack.c”, “queue.c” and “queue\_stack.c”

Name: \_\_\_\_\_ Points: \_\_\_\_\_ / 40 total

Item	Stack and Queue		
Tutor Report:	<input type="checkbox"/> Tests OK (E) (F)	Points:	
Tutor Comment:			
<input type="checkbox"/> Includes purpose comment (A)	<input type="checkbox"/> Adequate commenting (B)	<input type="checkbox"/> Meaningful names (C)	<input type="checkbox"/> Indentation (D)
<input type="checkbox"/> Use of #defines / constants (K)	<input type="checkbox"/> Clean output (H)	<input type="checkbox"/> Uses functions (L)	
<input type="checkbox"/> Evidence of test cases (G)	<input type="checkbox"/> Algorithm design (J)	<input type="checkbox"/> Shows digits	<input type="checkbox"/> Uses integers
Comments:			